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SUMMARY

of the

REPORT ON THE IN-DEPTH REVIEW OF THE NATIONAL COMMUNICATION

of

JAPAN

(The full text of the report (in English only) is contained in document FCCC/IDR.1/JPN)

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The text of this summary is also available on the World Wide Web (http://www.unep.ch/iucc.html) in document FCCC/IDR.1/JPN.

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Summary[1]

1. The in-depth review was carried out between June and December 1995 and included a visit to Tokyo by the team from 3 to 7 July 1995. The team included experts from the Republic of Korea, Bangladesh, the United States of America and the International Energy Agency.

2. Japan is a leading world economy with the second highest gross domestic product (GDP), and has one of the highest population densities among countries of the Organisation for Economic Co-operation and Development (OECD). It relies heavily on imported energy resources, particularly oil, to fuel the economy. Energy security is a policy imperative and a more diverse energy mix is an explicit policy goal in Japan. Energy efficiency gains over the last 20 years in Japanese industries have been impressive. The Government expects to transfer these levels of achievement to other sectors for energy security and climate change policy objectives, along with shifts in the energy mix such as doubling the nuclear electricity generating capacity between 1992 and 2010. Further emission reductions will, however, require even more ambitious shifts to less carbon-intensive fuels or efficiency gains in all sectors, though industry considers that most of the cost-effective improvements in that sector have already been achieved. With an expected population growth of 3 per cent over the decade of the 1990s and GDP growth projections of 3.5 per cent a year, a significant expansion in domestic consumption is expected. Japan's national target, as stated in its communication, is "to stabilize CO_2 emissions on a per capita basis in 2000 and beyond at about the same level as in 1990. Yet, further efforts are to be made to stabilize total CO_2 emissions in 2000 and beyond at the same level as in 1990." Japan generates the third highest carbon dioxide (CO_2) level among Annex I Parties. By far the majority of Japan's CO_2 emissions are energy-related, yet its per capita energy-related CO_2 emissions (9.4 tonnes) are relatively low compared to the OECD average (12 tonnes).

3. The cornerstone of Japan's climate change strategy is the *Action Programme to Arrest Global Warming* set out in 1990. The programme launched a number of policies and measures which are implemented and funded by various government bodies from their core budgets rather than from special or additional funding. A Council of Ministers has responsibility for overseeing progress and annual reports are compiled for their consideration. Only limited information was available to the review team on the specific mitigation effects of individual measures and the status of their implementation. Overall, the aim of the policies and measures is to achieve a number of objectives, with particular emphasis on increased energy efficiency and fuel diversity to further Japan's goal of enhanced energy security. Policies and measures described in the national communication also build on the 1993 Basic Environment Law. Japan employs a variety of policy instruments in pursuit of these goals including: standards and guidelines, targets, voluntary approaches, subsidies, financial

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[1] In accordance with decision 2/CP.1 (see FCCC/CP/1995/7/Add.1), the full draft of this report was communicated to the Japanese Government, which had no further comments.

assistance, research and development and education. This mix of measures whereby the Government establishes targets and administrative guidance and the private sector implements the measures with government financial incentives has been successful in Japan's programmes to improve energy efficiency. It is representative of the consensus approach used in many public policy areas in Japan. The outlook for continued reliance on this mix of measures to work towards climate change objectives appears positive, given the involvement of the private and public sectors. Consistent with the Basic Environment Law, studies on possible economic instruments including a carbon tax have been carried out, although, during the review, no reference was made to the possible use of such instruments to manage increasing energy demand in sectors experiencing fast economic growth, such as the residential and private transport sectors.

4. In general, Japan has provided information to support its national inventory estimates which is consistent with the minimum requirements of the Intergovernmental Panel on Climate Change (IPCC) and Convention reporting guidelines. The team, however, identified a few significant deviations from the IPCC and Convention guidelines, namely on the reporting of CO_2 emissions from biomass burning, the sectoral breakdown of fuel combustion sources and CO_2 removals by managed forests. Japan also uses its fiscal year (FY) as the basis for its statistics, which makes the comparison of inventory data with other Parties more difficult. The in-depth review process was very useful and facilitative in clarifying areas of discrepancy with the existing inventory and reporting guidelines. In agreement with government experts, the review team identified several priority areas for future work and national experts expressed their intention to eliminate discrepancies between Japan's greenhouse gas inventory data and IPCC recommendations.

5. Taking into account the assumptions and projections contained in the *1994 Long-Term Energy Supply and Demand Outlook*, which incorporates the effects expected from current measures, total CO_2 emissions are expected to reach 1.2 million Gg by FY-2000. This represents a 2.3 per cent increase on the 1990 levels. Based on these assumptions and the expectation of a 3 per cent increase in population this decade, the per capita CO_2 stabilization target established by the Government seems to be within reach. Yet, greater efforts will be necessary to achieve the second target of the Action Programme which aims at stabilizing total CO_2 emissions at 1990 levels by 2000 and beyond. To this effect, efforts will have to be made towards the development of innovative technologies, including those related to solar, hydrogen and other new energy sources, as well as CO_2 capture and disposal at a pace and scale greater than currently foreseen. However, during the review, new information was shared with the team suggesting that additional measures will be required even to attain the national per capita CO_2 target. These measures were envisaged in the 1994 energy outlook, but not reported in the national communication. Based on the latest information, the 1994 energy outlook assumes the full implementation of ongoing measures, "plus additional and as yet unidentified energy efficiency gains", as well as plans for a sharp increase in nuclear generating capacity. Total nuclear generating capacity is to increase from 41 gigawatts in 1995 to 70 gigawatts in 2010. Inventory data collected since 1990 have indicated that CO_2 emissions have increased significantly in the residential, commercial and transport sectors.

Total methane (CH_4) and nitrous oxide (N_2O) emissions are projected to remain at 1990 levels until 2000 and beyond. Preliminary data for FY-91 and FY-92 roughly confirm this trend.

6. The team believes that projections would be significantly improved with further analysis of the "without measures" scenario. Whilst not strictly required by the reporting guidelines, submission of such analysis is highly encouraged. Moreover, the one scenario provided deviated from the approved reporting guidelines as it did not include a sectoral breakdown, nor did it define the methodologies used.

7. Japan has fulfilled its commitment to report on adaptation (research) activities, systematic observation, and education, training and public awareness actions to support Japan's climate change policies. A full report on the expected impacts of climate change was submitted to the review team, although the relevant information was not included in the communication. Japan has also reported on its financial assistance in the context of the Convention and on the transfer of technology to some of its main trade partners with a view to assisting developing countries in pursuing the objective of the Convention. The team noted with appreciation the 17.4 per cent increase in Japan's official development assistance (ODA) in 1994 from 1993, although the ODA/GNP ratio remains at the relatively low level of 0.29 per cent.

8. Japan has to be commended for its research and scientific activities on the possible impacts and assessment of climate change and is invited to disseminate their results more widely as an important contribution to the overall implementation of the Convention.

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